

through what he calls a string of coincidences. A physiologist colleague in Guatemala who happened to have worked with John Vane, then at the Royal College of Surgeons, recommended Moncada to Vane. Once in England, Moncada joined Vane's team, which was then working on the mechanism of action of aspirin and its relationship with prostaglandin synthesis.

In 1974, he returned to Honduras to pursue a research career there, inspired by what he now says was a "romantic view" of doing science in a poor country. Finding it impossible without the necessary infrastructure, he lasted in Honduras only a year. By 1975 Moncada was back working with Vane, who by this time was at Wellcome. Moncada is immensely grateful for Vane's generosity. Vane — now at the William Harvey Research Institute within the University of London — says Moncada is "outstandingly brilliant", and that his qualities were evident almost from the start. By 1986, Moncada had become director of research at the Wellcome laboratories.

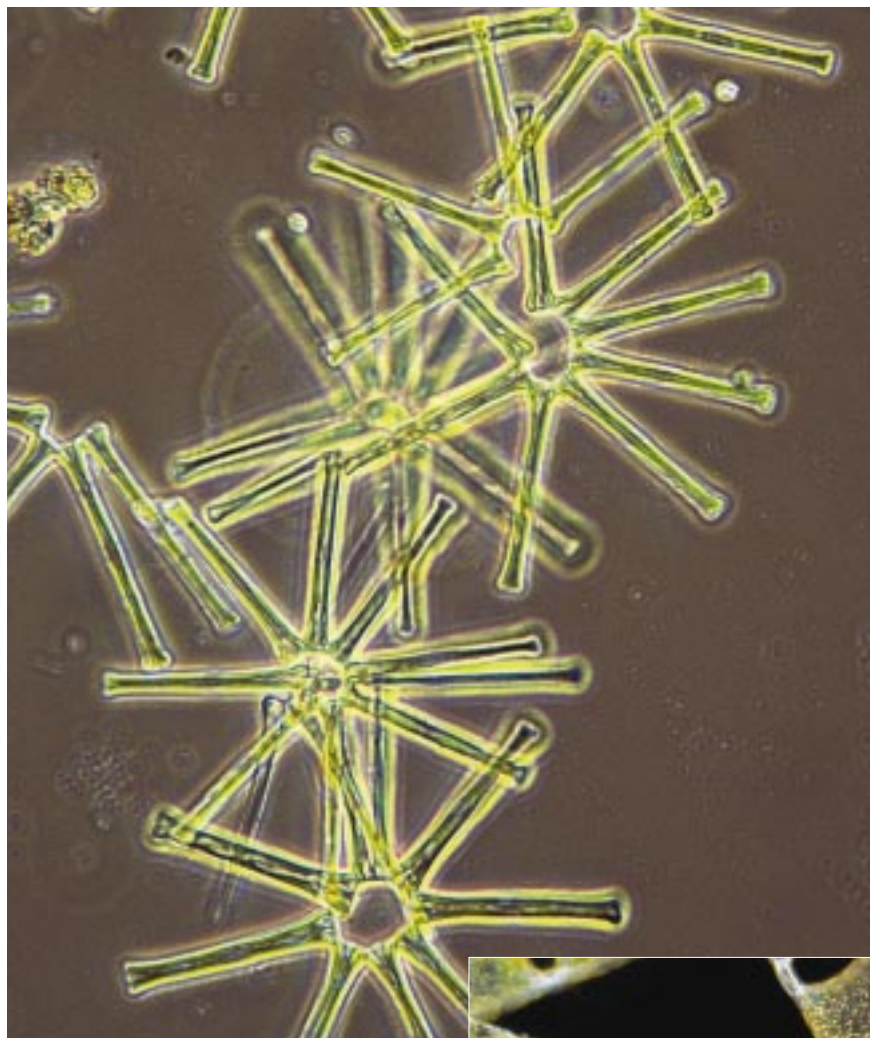
If the public field has had its frustrations, there have recently been personal delights for Moncada. He has married for the second time — and, whereas he may be an uncrowned king in biomedicine, his wife is a real princess. Esmeralda, a member of the Belgian Royal Family and a journalist, gave birth to a baby daughter last year.

Even new parenthood, however, has not displaced his enthusiasm for his research. His latest interest is in the process by which nitric oxide's normal physiological functions are subverted in disease; mitochondria — which he believes might be centrally implicated in that process — are the latest target for his team's intense investigations. All this makes running a country sound rather dull by comparison.

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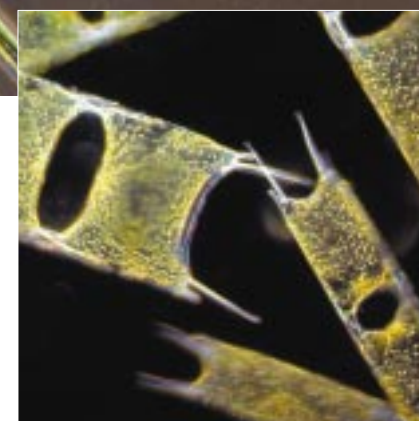
## Biology in pictures

### Aquatic jewels



The cells of diatoms — unicellular aquatic phytoplankton — are constructed like a pill box of glass; the outer wall of each cell is made of hydrated silica, with an inner pectic layer enclosing the cytoplasm.

Floating diatoms have several adaptations to keep them near the surface. For example, the star-shaped cells of *Asterionella formosa* shown above contain small oil drops that help to keep the cells in suspension. In other species, such as *Biddulphia sinensis* (above right), each cell has four long horns, which increase surface resistance.



These photomicrographs of live diatoms were kindly provided by Jan Parmentier. There are more examples on his website at <http://www.euronet.nl/users/janpar/index.html>